



Exploring children's difficulties with language and literacy

The cognitive approach

Narr:

The cognitive approach lies at the heart of Maggie Snowling and Charles Hulme's research into developmental disorders in children.

Charles:

I'd argue a cognitive approach in terms of understanding development disorders is absolutely crucial. The cognitive level of explanation or the level of explanation concerned with the workings of the mind really gives us a way of explaining why certain children learn and behave in particular ways, or fail to learn and master certain skills that we might want them to master.

We need to understand the information that's coming in, the way it's being dealt with, the way it's processed and held in memory which ultimately controls what we learn and the way we behave. So if you want to understand why a child is not learning to read you really need an explanation in terms of how does any child ever learn to read and that basically involves relating written symbols on a page to strings of sounds in spoken words, letters in printed words, relate to phonemes in spoken words, children need to understand and to master the mappings in that system. The level of explanation I'm talking about, relating letters to sounds, is essentially a cognitive level of explanation. We might relate that to say that some children have problems in the left hemisphere of their brain which accounts for why they're failing to learn those mappings and we might further, in some cases, relate the fact that those left hemisphere brain mechanisms have failed to develop as we would hope they would do due to certain genetic differences between those children and other children, or that child and another child. But ultimately those are what I would call more distal explanations, the genetic differences are things we can't really do anything about, the brain differences at the moment are things we can't do anything about, but we can address methods of teaching that will be particularly effective in coping with certain cognitive problems or cognitive differences between people.

Maggie:

I think the cognitive level of explanation is absolutely crucial. What some practitioners and some students find difficult is differentiating that from a behavioural level of explanation. So if you take the example of dyslexia which is very good evidence for a phonological deficit, but its behavioural manifestations can be quite different in different children, and if you think about the role of orthography the manifestation of dyslexia is very different in an English speaking and reading child to its manifestation in a child who's learning to read and spell in a very regular language like Finnish. In English the behaviour is poor accuracy, difficulty with spelling, but in Finnish it's much more a problem of reading fluency and writing rate, so I think it's not a limitation of a cognitive approach but I think some people find it quite difficult to differentiate the level of cognition from the level of behaviour and of course the reason for that is cognition is invisible and behaviour is visible.